

NOTES ON SOME NEW AND INTERESTING BUTTERFLIES FROM MANIPUR AND THE NAGA HILLS.

BY

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PART II.

Subfamily—*Nymphalinae*.

EULEPIS LISSAINEI, n. sp. (Pl. I, Fig. 4 ♂).

This belongs to the *Marcæa-Meghaduta* group and may possibly be the dry-season form of the latter, but as I failed to take it in the wet-season it is better to keep it distinct for the present. From *marcæa*, which I only know from Seitz's figure, it differs on upper forewing in having the spot beyond the cell much larger and the spots on the black terminal border quite separate with their *inner* edges even and *outer* edges conical. In *marcæa* it is not so, the spots are continuous forming a greenish band, the *outer* edge being straight and the *inner* edge forming a row of rounded or conical projections. On the hindwing the subterminal black band is much narrower and there is a terminal row of black spots somewhat as in *meghaduta*, but which is quite wanting in the figure of *marcæa*. The anal angle has two black spots placed on the green colour, whereas in *marcæa* only one spot is shown placed on a pinkish ground. In size it differs greatly being very much smaller.

From *meghaduta*, which I also only know from Seitz's figure, vol. ix, pl. 135a, it differs in being much smaller and less heavily marked. The dusky area on *upperside* near base of forewing and along vein 1 of hindwing is entirely wanting. On *upper* hindwing the terminal black line, broad and distinct in *meghaduta*, is much reduced and entirely wanting at the apex. The subterminal spots so well marked in *meghaduta* are also much reduced near tornal angle and obsolescent or entirely wanting near the apex.

Underside: ground colour pale yellowish green. Forewing costa, except near apex and termen, broadly chocolate; a similar subterminal chocolate band outwardly margined with blackish; a subcostal band as on *upperside* commencing at the subterminal band and continued along vein 4 and lower edge of cell to just below base of vein 2, and joined to the costal chocolate band by a similar band along the discocellulars, both margined with black. Hindwing: a submarginal band edged with blackish from costa to tornus; a subbasal similar band continued along vein, and joining the submarginal band a terminal narrow chocolate band, rather paler towards the apex, inwardly; margined with small rather obsolescent black spots; and finally a small black spot on dorsum on the inner edged of the submarginal band.

Expanse: ♂ 2.52—2.73".

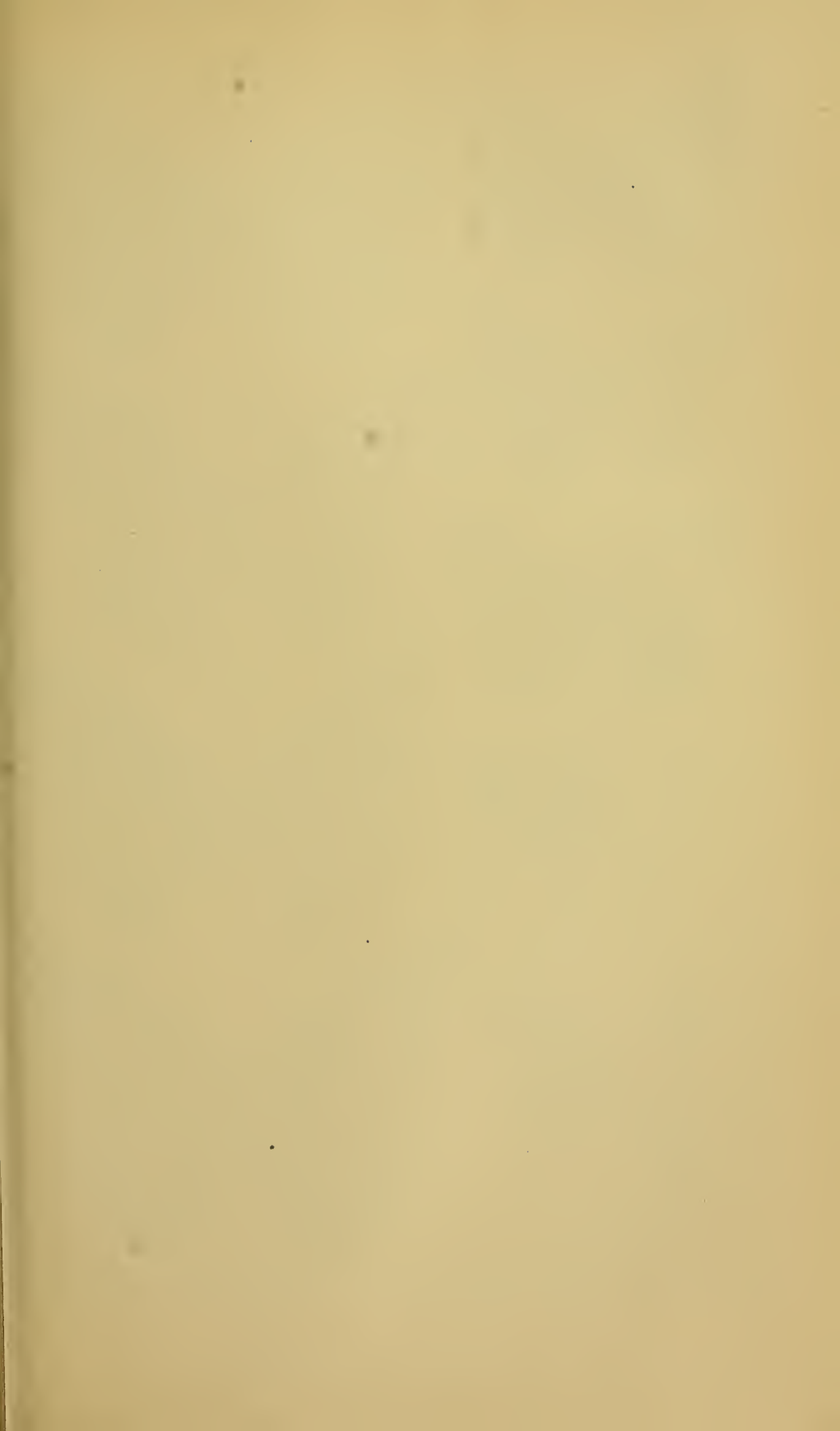
Sixteen males taken near Phesima, Naga Hills, at about 6,000' at the end of April, May and the beginning of June.

APATURA SORDIDA, Moore.

Rather common in the Manipur valley where numerous specimens of both sexes were taken more or less throughout the summer and autumn. A single specimen was also obtained on the Silchar Road in October. It is extremely local.

APATURA SORDIDA NAGA, sub-sp. nov. (Pl. I, Fig. 3 ♂).

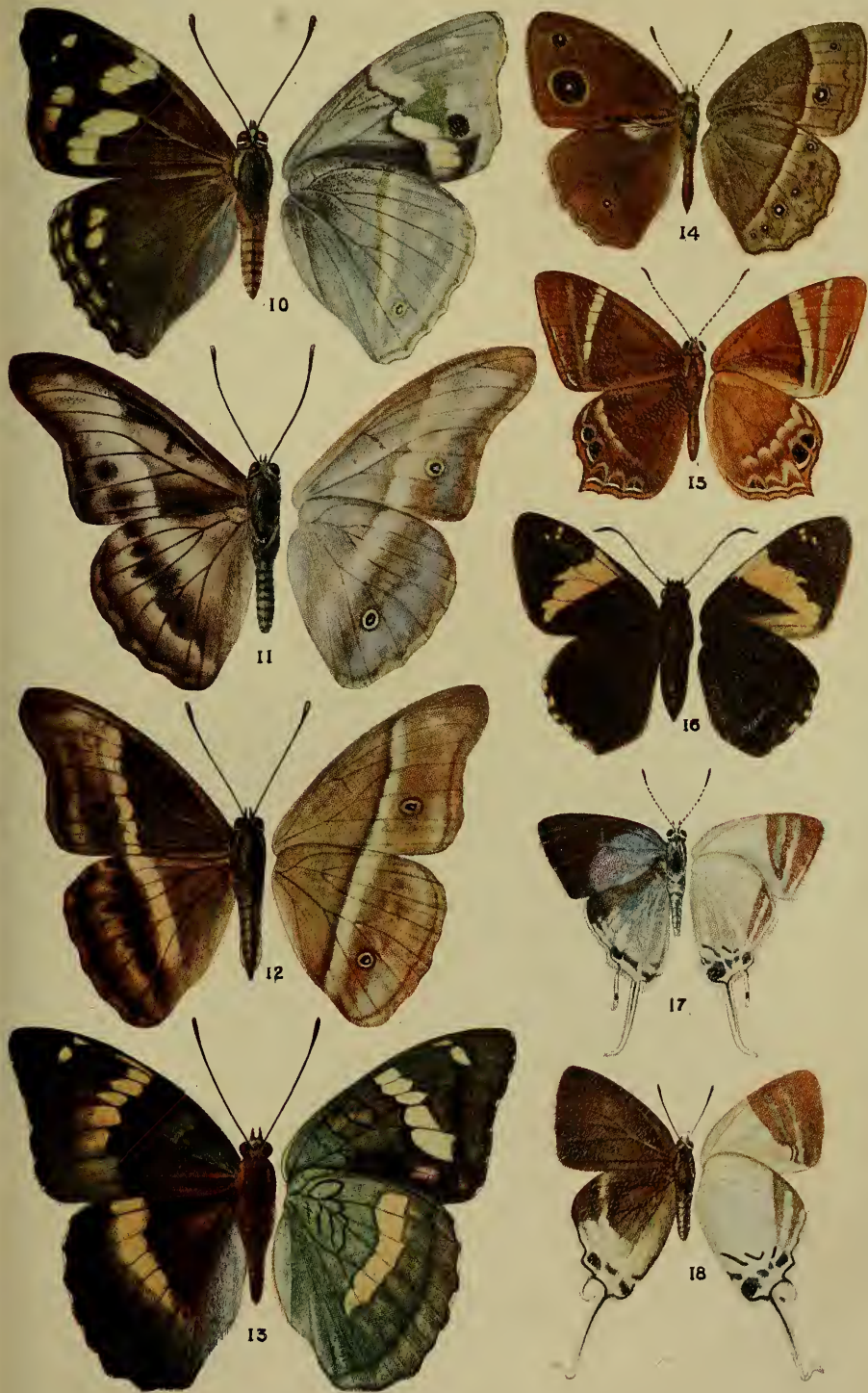
Male. *Upperside*: very similar to the typical form but the wings are of somewhat different shape. Forewing: termen not so emarginate; Macular



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EXPLANATION OF PLATE II.

- Fig. 10.—*Apatura florenciæ*, Tytler. ♀ .
,, 11.—*Apatura manipuriensis*, n. sp. ♂ .
,, 12.— „ „ „ ♀ .
,, 13.—*Dophla curvifascia*, n. sp. ♂ .
,, 14.—*Mycalesis albofasciata*, n. sp. ♂ .
,, 15.—*Abisara attenuata*, n. sp. ♂ .
,, 16.—*Achalarus aborica*, n. sp. ♂ .
,, 17.—*Neocheritra fabronia*, de N. ♂ .
,, 18.— „ „ „ ♀ .



D. Bagchi & A. Chowdhari, del.

Butterflies of Manipur and the Naga Hills.

NOTICE.

Owing to the War the four coloured plates to accompany Lt.-Col. Tytler's paper have not yet arrived. We hope to publish them with the remaining part of his paper in the next issue.

EDITORS.



band pale yellow and not pure white as in typical form. Hindwing: termen round and not emarginate near tornus; tornal ocellus not ringed and very indistinct. *Underside*: rather greyer than typical form with a distinct golden sheen along terminal area. Forewing: a blue centre to the ocellus and cell closed by a brown bar. Hindwing: the discal brown band very concave near the costa and the white spots outwardly further placed from the discal band than in typical *sordida*.

Expanse: ♂ 2.45—2.9".

A single ♂ was taken at Yakama, Naga Hills, at about 6,000' in June; three ♂♂ at the same place in September and seven more in October.

A very distinct and well marked race which apparently flies at a much higher elevation than the typical form which in Manipur flies at about 2,600'.

The specimen of *A. sordida* recorded by me from the Naga Hills, J. B. N. H. Soc., vol. xxi, p. 56, is probably referable to this race. I am unable to compare it as I left it behind in England.

APATURA ULUPI, Doherty.

A single male of this rare butterfly was taken by Captain Porter on the Dihang River, Abu Hills, in June, and is now in my collection.

APATURA FLORENCIÆ, n. sp. (Pl. II, Fig. 10 ♀).

Female. *Upperside*: both wings termen rounder than in the male; ground colour dusky green. Forewing: outer half dark brown; no spot in cell, markings otherwise placed as in male but pale creamy yellow in colour with the exception of the submarginal spot in inter space 2 and the marginal line near the tornus which are tinged with darker yellow. Hindwing: markings as in male but bases of interspaces 5 and 6 not paler than rest of the wing. *Underside*: both wings pale silvery bluish green. Forewing: no pale diffuse spot in cell; markings otherwise as in male but almost pure white in colour; the discal spots and those placed beyond the cell inwardly margined with dark purplish black. Hindwing: markings as in male but discal band straighter.

Expanse: ♀♀ 2.85—3.05".

♀ Variety *albopunctata*, n. v. *Upperside*: the spots are all white with no tinge of cream colour.

The female is very rare and only six specimens were obtained in August and September at about 6,500'.

The males are not so rare as I thought, though very local, and many specimens were taken near Jakama in the Naga Hills during July, August and September and a few at Kirban and Takabama where I had not previously met with it.

This species will, I think, prove to be a race of *A. ulupi*, Doherty.

APATURA MANIPURIENSIS, n. sp. (Pl. II, Figs. 11, 12; ♂ ♀.)

Male. *Upperside*: both wings smoky brown with hyaline very pale markings, slightly tinted with mauve reflections, and almost devoid of scales in places. Forewing: termen deeply excavated at its middle; cell and base of interspaces 2 and 3 hyaline dusted with pale brown scales; a brown streak, sometimes divided in two, in the middle of the cell and another similar streak closing it; a broad hyaline post median area, almost reaching the termen, inwardly sharply defined and outwardly diffuse bearing a large black spot in interspace 2, a very small and indistinct spot sometimes in interspace 3 and a large brown diffuse patch in interspace 1; a preapical pale spot in interspace 6; and finally a brown terminal band, broadest in interspaces 2 and 3. Hindwing: basal half hyaline tinted with very pale mauve and slightly dusted with brown scales near costa

forming an indistinct band as far as lower edge of cell; outer half brown, traversed by a pale pellucid violet tinted band composed of lunules, rather pointed outwardly near costal end; an indistinct dark spot in interspace 2; and lastly a dark terminal waved line. *Underside*: pale silvery mauve; hyaline markings as on upperside; brown markings much paler and greatly reduced becoming obsolete in the subterminal area; a black spot in interspace 2 of forewing and a similar spot in interspace 2 of hindwing centred with bluish white and encircled by a yellow and a pale brown ring; inner half of both wings defined by a narrow pale brown line commencing in interspace 6 of forewing and continued to dorsum of hindwing; a post discal; broad pale brown band, commencing in interspace 1 of forewing and continued to near tornus of hindwing; a subterminal area of the ground colour, broad on the hindwing, narrower on the forewing, where it merges into the postdiscal hyaline area; and finally a pale brown terminal line.

Female. *Upperside*: somewhat similar to the male but nearly entirely brown. Forewing: termen not so deeply excavated; a pale whitish narrow discal band composed of contiguous spots which are pellucid in interspaces 4-6; apical area of cell and interspaces 2 and 3, as far as the discal white band, darker brown; a pale subapical hyaline spot; an indistinct black spot in interspace 2; and a subterminal rather indistinct pale lunular band outwardly bordered with dark brown. Hindwing: a discal whitish band, dusted with brown and rather indistinct near dorsum, and pellucid in interspaces 6 and 7; a dark spot in interspace 2; a subterminal pale lunular band and a terminal dark band as in male. *Underside*: ground colour pale buff brown. Forewing: a white discal band as on upperside inwardly sharply defined and bordered by dark brown, outwardly somewhat diffuse; a preapical pale pellucid spot in interspace 6; ocellus in interspace 2 as in male; a diffuse pale brown patch in interspace 1 outwardly bordered with lilac; and lastly a terminal pale brown line. Hindwing: a white band as on upperside inwardly sharply defined and bordered with dark brown, outwardly diffuse and bordered by a rather broad pale brown band bearing an ocellus similar to the male in interspace 2 and some pale marks in interspaces 3-6; a broad subterminal area of the ground colour suffused with mauve near the tornus and apex; and lastly a terminal waved pale brown line. Eyes hairy.

Expanse: ♂♂ 2.78-3.2"; ♀ 3.1".

Described from 15 ♂♂ and 1 ♀ taken at the foot of the hills near Sebong Manipur, on the Burma Road, in April. They were found by my Native collectors flying in a deep shady nullah. I sent the collectors back to the same place in May, but they did not see one again. The insect appears to be single brooded and is either very rare or extremely local.

It belongs to the subgenus *Eulaceura*, Moore, hitherto represented within Indian limits by a single species, *osteria*, Westwood.

EURIPUS FUNEBRIS, Leech.

A single male was taken by my Native collector at Yakama, Naga Hills, at 5,000 ft. in July 1911, and three more at the same place, during the same month, in 1912.

Capt. Evans to whom I sent a figure for identification writes: "The *Memoon* like Nymphalid is *Euripus funebris*, Leech, described from Omeishan, very rare. Your figure and description agree exactly with Leech's figure, etc., in "Butterflies of China." A form of it has recently been described from Formosa in the *Entomologist*."

The butterfly is certainly very rare in the Naga Hills. I had collectors at Yakama all through July this year, especially to look for this insect but they failed to come across it.

ABROTA GANGA, Moore.

A single female was taken by Capt. Porter on the Dihang River, Abor Hills, in July, which differs from Bingham's description and figure and from Seitz's figure in having all the pale markings more suffused with dusky green, with the exception of the discal band on the hindwing which is almost white and very narrow.

SYMPHÆDRA DIRTEA, Fabr.

Three forms of *dirtea* occur in Manipur and one in the Naga Hills, viz. typical *dirtea*, Fabr. Occurs at Sebong, Eastern Manipur Hills, where several specimens were taken from March to July.

Var. *intermedia*, n. v. is an intermediate form connecting *dirtea* and *khasiana*. Many specimens were taken at Sebong, Eastern Manipur Hills, on the Irang River, Western Manipur Hills, and at Nichuguard, Naga Hills, from March to October.

Var. *khasiana*, Swinhoe: typical specimens were taken on the Irang River, Western Manipur Hills and near Sebong, Eastern Manipur Hills, in March and April, and again in October.

I do not think the difference in facies is due to seasonal causes as all three forms fly together on the Eastern Manipur Hills and varieties *intermedia* and *khasiana* fly together on the Cachar Road, Western Manipur Hills. In the Naga Hills var. *intermedia* only was met with.

DOPHLA DURGA SPLENDENS, sub-sp. nov.

A single male taken near the foot of the Hills on the Ukral Road, about 28 miles east of Imphal, in July at about 3,000' differs considerably from typical forms I have in my collection from Sikkim and the Abor Hills.

Upperside: white discal band on both wings broader; forewing otherwise similar.

Hindwing: the black margin to both edges of the white discal band broader and more distinct: the blue border beyond outer edge of discal band composed of a complete series of well marked lunules with the outer edge well defined; in typical *durga* from Sikkim and Assam this blue band is only formed into distinct lunules near the costal end; the tornal half always having the outer edge even and rather diffuse; terminal detached blue lunular streaks very distinct. *Underside*: basal ground colour purer blue and not so tinged with green; all the markings broader and more distinct; the subterminal area marked with large black lunules which are towards the apex of both wings very markedly outwardly pointed; terminal bluish white patches more prominent. Somewhat larger than typical forms before me.

Expanse: ♂ 4.52'.

This appears to be a very distinct race of *D. durga*.

DOPHLA CURVIFASCIA, n. sp. (Pl. II, Fig. 13).

Male and female. *Upperside*: bronzy olive green somewhat similar to that of *D. nara*, but of a much more bronzy tint. Forewing: apex acute; termen nearly straight; cell with a medial and apical pair of short transverse black sinuous lines, the former extending into interspace 1 forming a circle and a black dot below; the space between the two pairs of dark lines paler than the ground colour; a postdiscal transverse band of spots as in *D. sahadeva* but much smaller; the spots in interspaces 2 and 3 sullied with the ground colour; a preapical pair of pale almost white spots in interspaces 6 and 8 below which is a pale yellowish green area, commencing in a point in interspace 5 and ending on the dorsum filling the outer half of interspace 1 and inwardly broadly bordered with dark blackish green; a

subterminal narrow dark band from costa to middle of interspace 2 and a similar terminal band broad at the apex and ending in a point at the tornus. Hindwing: a conspicuous curved pale yellow band commencing in interspace 7, broadening out in interspaces 6 and 5 and ending in a point in interspace 3, inwardly sharply defined and outwardly diffused; a dusky black subterminal line, broadest at the costal end, between which and the discal yellow band the colour is much brighter than the basal half; termen bordered with dusky black and separated from the subterminal dark band by a narrow band of the ground colour, except near the costa where it joins it. *Underside*: olive green; the base of forewing and nearly the whole of the hindwing tinted with blue. Forewing: markings in cell as on upperside: a short streak below base of vein 2; a transverse series of white spots as on upperside, inwardly bordered with black; preapical spots and subterminal dark line as on upperside, but the latter narrower and better defined and ending in a large dark purplish black spot in interspace 1; the middle of interspace 2 and outer two-thirds of interspace 1 dusky purple. Hindwing: a circular black mark at base of interspace 7; a short curved streak at base of interspace 6, another straight black mark at base of interspace 5; two narrow black lines across the cell and two more on either side of the discocellulars; a curved discal band as on upperside but paler and narrower and continued into interspace 2; both edges defined sharply with olive green; a subterminal olive green narrow line, sometimes forming detached linear spots in the male.

Antennæ black. Eyes dark brown. Palpi pale olive brown above, whitish below. *Hanstellum* pale green. Body dark bronzy green above, bluish grey below, somewhat darker in the male.

Expanse: ♂♂ 3.1—3.2"; ♀♀ 3.4—3.57". Five males and three females of this rare butterfly were taken in August and September, during the past three years, at Yakama and Phesima in the Naga Hills at about 7,000'—8,000' and a single male on Kabur Peak, Manipur, 8,400' in August.

This very distinct species can be at once distinguished from its nearest allies *D. nara* and *D. sahadewa* by the conspicuous and continuous curved band on the hindwing.

Capt. Evans in vol. xxii. of the Journal, p. 282, mentions a *Dophla*, secured by Mr. Ollenbach in the Khasi Hills, as referable to this species. I have not seen the specimen he refers to but I doubt this being so; the forewing of *D. curvifascia* is certainly very like that of *D. sahadewa*, but besides the spots being smaller, the spots in interspace 2 is very diffuse and not clearly defined as in *D. sahadewa*. The hindwing however is very different to *D. duda* ♀. The colour is bronzy green, whereas in *duda* ♀ it is very dark olive green; the discal band in *duda* is white outwardly bordered with blue; in *curvifascia* it is yellow and not bordered with blue and has the edge of the band on underside showing through. The band is moreover of a different shape being much hollowed out in the middle; in *duda* it is only slightly curved.

DOPHLA SAHADEVA, Moore.

There are two well marked forms of the female which do not seem to intergrade:—

- (a) A pale form with three spots on hindwing; this is the prevailing form.
- (b) A larger and darker form; forewing rather more outwardly produced at apex; spots more elongated and slightly tinged with very pale blue. Hindwing: *Upperside*: only two spots near costa. *Underside*: discal spots distinctly bluish; the termen also is squarer at vein 4.

The two forms placed side by side appear very different but undoubtedly belong to the same species.

DOPHLA IVA, Moore.

Three males and a female of this rare butterfly were taken by my Native collectors at Kirbari, Naga Hills, at 6,000 ft., in July, August and September.

DOPHLA TAOOANA, Moore.

Two males in perfect condition taken on Cachar Road, Manipur, at the end of April or beginning of May.

This is a very interesting capture as it has previously not been recorded further north than the Hills of Lower Burma.

EUTHALIA COCYTUS, Fabr.

Several males taken at Sebong on the Burma Road, Manipur, in March, April, October and November. I believe this species has not been recorded so far north before.

EUTHALIA SEDEVA, Moore.

Both *E. sedeva* and *E. appiades* occur in Manipur but do not fly together. *E. sedeva* is confined to the Western Manipur Hills and *E. appiades* to the Eastern Manipur Hills.

E. adima was not met with.

EUTHALIA JAPROA, n. sp. (Pl. III, Fig. 22 ♂).

Male. *Upperside*: dark olive green. Forewing: Cell paler green than the ground colour and crossed by two dark broad bands; a subterminal row of white spots with diffused edges inwardly bent at interspace. Hindwing: a very indistinct broad discal band of slightly paler colour with iridescent greenish reflections somewhat brighter towards the tornus; a subterminal row of pale spots as on forewing but closer to the termen, large and white towards the apex, small and pale green towards the tornus; dorsum very pale green. *Underside*: bluish white with iridescent green reflections; two black broad bars crossing cell of forewing; a similar bar crossing cell of hindwing at its middle and a black spot near its base and another at the base of interspace 7; a very broad dark discal band, commencing in interspace 2 of forewing and continued to near tornus of hindwing where it ends in a point, purplish black on forewing and suffused with greenish reflections on the hindwing; its inner edge very dark and sharply defined in interspaces 4, 5, 6 and 7; inner edge below this and entire outer edge much paler and very diffuse; the subcostal area of forewing and subterminal area of hindwing suffused with iridescent green; a subterminal row of pale spots on both wings as on upperside but not so distinct becoming obsolescent towards the tornus; a terminal dark area narrow on the hindwing becoming broader towards the apex of the forewing.

Antennæ dark brown above and below; club below yellow brown.

Body dark green above; greyish bluish white below.

Expanse: 3.42".

A very distinct species; its nearest ally appears to be *Euthalia francie* which, however, is quite different.

A single specimen was taken by my Native collector above Phesima, Naga Hills, at 6,000' in a nullah below Japro Peak.

BHAGADATTA AUSTENIA, Moore.

Only the wet-season form appears to have been described. The dry-season *female* differs from the wet-season *female* in being larger. *Upperside*: paler brown; post discal and subterminal bands much paler; subterminal lunules on forewing conspicuously whiter and on hindwing in one specimen outwardly bordered with white. *Underside*: ground colour paler; brown markings darker.

Two females obtained near the Lengha and Irang Rivers, on the Cachar Road, Manipur, in April and May.

Many males and five females of the wet-season form were obtained at Kirbari, Naga Hills, at about 6,000' from July to September. It is by no means a common butterfly.

BHAGADATTA AUSTENIA PURPURASCENS, sub-sp. nov.

Under the above name I propose separating the form of *austenia* which occurs in the Abor Hills, and which differs from Naga Hills specimens in having on the *upperside* of the males the ground colour strongly suffused with purple; and in having the subterminal lunules, in both sexes, from apex of forewing to interspace 3 much whiter and more distinct. *Underside*: the markings in both sexes are darker and stand out more clearly.

Female. *Upperside*: as in typical form. *Underside*: as in male.

The intensity of the purple suffusion is somewhat variable; five out of my eight specimens have it more marked than the other three. In the *typical* form this suffusion is only faintly discernible and sometimes absent; in no specimens before me is it nearly as intense as in any of the Abor Hills forms. Eight males and a female were taken by Captain Porter on the Dihang River, Abor Hills, at about 3,000' in June and July and kindly presented by him to me.

ATHYMA LARYMNA, Doubleday.

Five males and a female were taken near Sebong, Manipur, in March and July respectively.

This is an interesting capture, for although Westwood recorded it from Northern India, de Nicéville thought this to be probably incorrect and did not include it in his "Butterflies of India." Bingham gives its habitat as the Malayan Subregion, extending into Tenasserim.

NEPTIS NEMORUM PHESIMENSIS, sub-sp. nov. (Pl. III, Fig. 24).

Very close to *N. nemorum*, Ch. Oberthur, but differs from the original figure in the "Études de Lépidoptèrlogie comparée," pl. viii, fig. 3, 1906, in having on the *underside* all the brown markings much darker with a purplish black tinge. Forewing with yellow markings very similar. Hindwing: the median yellow band much broader; the post median brown band also slightly broader and the terminal broad yellow area consequently narrower, which moreover is not bordered inwardly with dark brown as in the typical form. Interspaces 6 and 7 nearly entirely suffused with purple.

Expanse: ♂♂ 2.45—2.6".

Eighteen males were taken by my Native collectors from the middle of May to the beginning of June, in a nullah near Yakama, Naga Hills, at about 6,000'.

NEPTIS KIRBARIENSIS, n. sp. (Pl. III, Fig. 19 ♂).

This may possibly be a race of *N. cydippe*, Leech, from Central and Western China, but from Seitz's figure of which it differs in the following respects:—

Upperside: yellow markings much paler and buffy yellow slightly darker near the edges. Forewing: preapical and post median spots much larger.

Hindwing : discal band much broader, narrow at dorsum broadening out at its middle. *Underside* : markings lighter. Forewing very similar but spots in interspaces 1-a and 1 large and joining on to spot in interspace 2 ; markings almost white with a pinkish tinge. Hindwing : discal band white with a pinkish tinge and much broader especially so towards costa, outer edge even and not broken at vein 6 ; the brown area below it confined towards the middle where it is outwardly produced as vein 4 crossing the white subterminal band ; subterminal band white and much more distinctly marked.

A single male was taken at Kirbari, Naga Hills, at 7,000' at the end of June.

Expanse : ♂ 2·78".

NEPTIS ASPASIA, Leech.

A single male of this species was taken by my Native collector at Kirbari, Naga Hills, at about 7,000' in June.

It differs from Seitz's figure of *aspasia* on *upperside* forewing in having the preapical yellow spots larger and the dorsal spot also larger, the lower one being inwardly produced as far as the dip on angle in the dorsum. On the hindwing the median band is much broader ; subterminal band paler and also slightly broader. On the *underside* the hindwing differs in having the subterminal pale violet band half as narrow ; vein 7 and base of veins 6 and 8 lined with violet.

N. aspasia is a Chinese insect and has not previously been recorded from within Indian limits although recently a single specimen has been recorded by South as having been taken by Captain Bailey at Rima in S. E. Tibet close to the Mishmi Hills border. (J. B. N. H. S., vol. xxii, page 357.)

NEPTIS ANTILOPE, Leech.

Two males and two females were obtained at Kirbari, Naga Hills, at about 7,000', in June and July.

These specimens differ from Seitz's figures as follows :—

Upperside : spots in interspaces 2 and 3 of forewing larger and squarer as in *N. melba*, Evans ; in the figure they make one rather small round spot.

Underside : Forewing : preapical spots separate, the lower one white ; subterminal dark narrow line continuous, reaching the costa ; oblique dark brown band reaches right across the wing from the costa to the middle of the termen, in the figure it stops short of the subterminal dark line leaving the terminal area unmarked. Hindwing : discal band whitish, narrow at the dorsal end and broadening out towards the costa, in the *figure of antilope* it is the reverse, being widest at the dorsal end and narrowing towards the costa ; the dark post discal band is chocolate outwardly tinted with yellow with a violet band in its centre ; in the *figure of antilope* it is quite different. There is also a terminal dark line which is wanting in the figure. The Naga Hills form may prove to be a western race of *N. antilope*.

NEPTIS NARAYANA NANA, de N.

A single male taken at Kirbari, Naga Hills, 7,000' in September. It agrees very well with a specimen in the de Nicéville collection.

Ab. naga, n. a single male of what appears to be an aberration of *nana* was taken at Kohima, Naga Hills, at 7,500' in August. It differs from the typical form as follows :—*Upperside* : Forewing : all markings white except the preapical spots which are outwardly yellow. Hindwing : discal band white except near the costa where it is tinged with yellow ; cell streak on forewing broader. *Underside* : Hindwing : the double subterminal band broader and indistinct ; the terminal violet band also very indistinct.